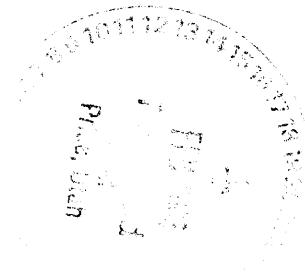


*J. Conroy*  
*2/04/002*

# COAL EXPLORATION PLAN

FEDERAL COAL LEASES U-63214 AND U-76195



ARK LAND COMPANY  
A Subsidiary of Arch Coal Inc.

FEBRUARY 2003

RECEIVED

MAR 20 2003

DIV OF OIL, GAS & MINING

## Introduction

Ark Land Company (a subsidiary of Arch Coal Inc.) is submitting this exploration plan on behalf of Canyon Fuel Company, LLC - SUFCO Mine to the United States Bureau of Land Management (BLM) as required in 43 CFR 3482 in order to obtain approval to conduct coal exploration and reclamation activities in the summer of 2003. The type of exploration proposed is rotary/core drilling. One exploration drill hole will be drilled on federal coal lease U-63214 and three holes will be drilled on U-76195. All exploration activities will occur on U. S. Forest Service, Manti - La Sal National Forest surface and will involve coal resources administered by the U. S. Bureau of Land Management. This plan is formatted to address the specific requirements of 30 CFR Chapter VII Subchapters G and K and 43 CFR 3482, and, where applicable, those of the United States Forest Service (USFS), and the Utah Department of Oil, Gas and Mining (UDOGM). The U. S. Forest Service exploration stipulations are addressed in Appendix B. Requirements of the Utah Department of Oil, Gas and Mining (UDOGM) are addressed in Appendix C.

### 43 CFR 3482

3482.1(a)(1) This exploration plan is submitted to the authorized officer to obtain approval to conduct exploration and reclamation activities. The exploration activities proposed are not considered casual use because some heavy equipment will be employed and minor surface disturbance will occur.

3482.1(a)(2) Five copies of this exploration plan are delivered to the authorized officer. This exploration plan honors the BLM and USFS conditions of the federal coal leases involved including protection of the coal resources and reclamation of the disturbed surface. Reclamation is an integral part of the exploration activities and will progress as contemporaneously as practical with the other exploration activities.

3482.1(a)(3)(i) The name, address and telephone number of the applicant are:

Ark Land Company  
C/o Skyline Mines  
HC 35 Box 380  
Helper, Utah 84526 (work) 435 448-2633

The applicant is the same as the operator of the proposed exploration plan. Correspondence regarding this exploration plan should be addressed to:

Mark Bunnell  
Ark Land Company  
C/o Skyline Mines  
HC 35 Box 380  
Helper, Utah 84526 (work) 435 448-2633

The lessee of record is:

Canyon Fuel Company  
6955 South Union Park Center  
Suite 550  
Midvale, UT 84047  
801 569-4700

3482.1(a)(3)(iii) The name, address and telephone number of the representative of the applicant who will be present during and be responsible for conducting the exploration is:

Mark Bunnell  
Ark Land Company  
C/o Skyline Mines  
HC 35 Box 380  
Helper, Utah 84526  
(work) 435-448-2633 (home) 435-637-6690

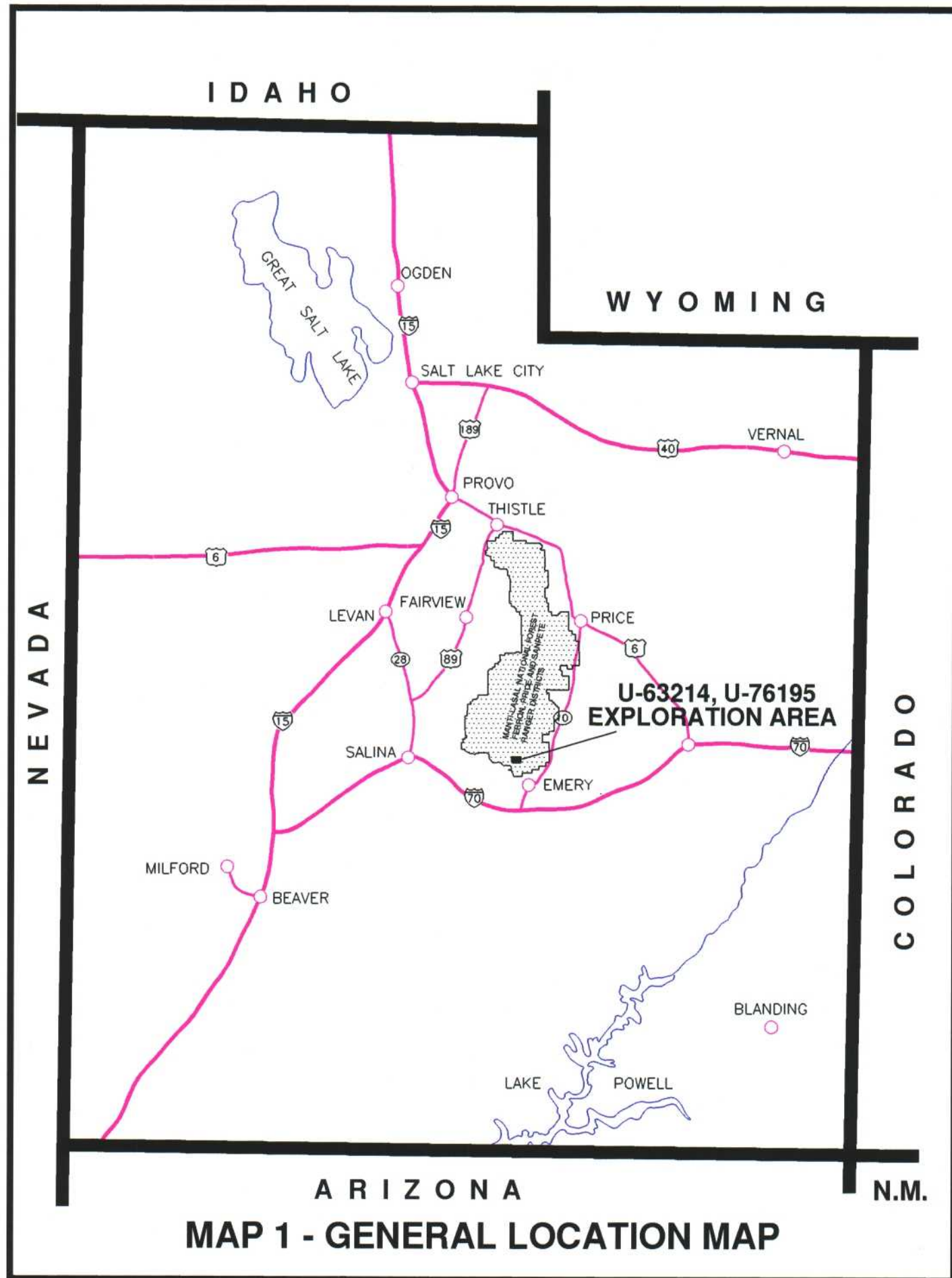
At times a consulting geologist may act as representative of the applicant. The BLM, USFS and UDOGM will be notified of the consulting geologist's name and address if one is used.

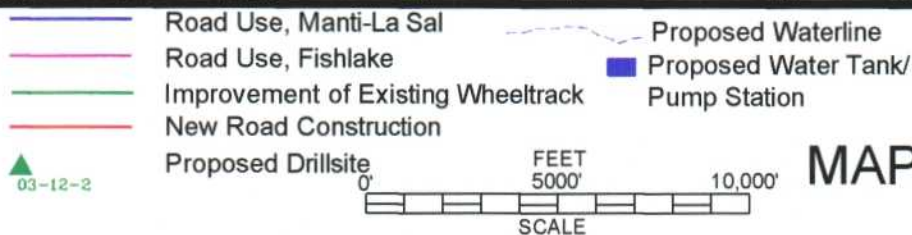
3482.1(a)(3)(iii) The exploration area is generally located in central Utah 6 miles east of Emery (Map 1). Map 2 gives the location of drill sites and access routes. The drill sites are located on federal coal leases U-76195 and U-63214. Heavy Equipment access to the exploration area will generally be via Forest Development Road FDR 007 which traverses federal coal leases SL-062583, U-47080, and U-63214 on both the Fishlake and Manti-La Sal National Forests then FDR 044 which traverses federal coal lease U-76195 on the Manti-La Sal National Forest. Equipment capable of using the Link Canyon road may access the site on FDR 044 from the east.

Three drill sites (03-24-1, 03-12-1, and 03-12-2) on U-76195 will be drilled adjacent to existing roads FDR 028 and 309. One site (03-17-1) on U-63214 will be accessed by improvement of an existing wheel track and construction of a new road. The wheeltrack is accessed from FDR-007 (Maps 2 and 3).

Surface topography of the area is fairly flat with some low rolling hills and small drainages with elevations ranging from 8,400 ft to 8,900 ft. The major drainages in the area are Box Canyon Creek and Muddy Creek. Site 03-17-1 is located on the south-facing slope of Big Ridge (Maps 2 and 3).

Rocks exposed in the exploration area belong to the Cretaceous age Blackhawk, Castlegate, and Price River Formations and the Cretaceous-Tertiary age North Horn Formation. The rock types are predominantly sandstone, siltstone, shale and coal. The major geologic feature in the exploration area is the escarpment created by the outcrop of the 200 ft thick Castlegate Sandstone.





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DATE BY		<b>ARK LAND COMPANY</b>	
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DATE BY			
<p align="center"><b>DILLING PROJECT, 2003 FED. LEASES U-63214 AND U-76195</b></p> <p align="center"><b>DRILL HOLE LOCATIONS CONSTRUCTION AND ROAD USE LAYOUT</b></p>			
APPROVED			
DATE BY			
		SCALE	SHEET NO.
		1" = 5000'	
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Vegetation in the exploration area is comprised mostly of conifer timber and sage communities. The streams are not capable of supporting game fish. The exploration area is important habitat for raptors, elk, mule deer, cougar, bobcat, black bear, and small mammals. The area is habitat for a limited number of reptiles and amphibians.

Threatened and endangered species in the exploration area include sage grouse, bald eagle and peregrine falcon. Exploration and reclamation activities will not occur during breeding and nesting periods nor within one half mile of known breeding and nesting areas.

There are no known districts, sites, buildings, structures, or objects listed on, or eligible for listing on, the National Register of Historic Places in the proposed exploration area. There are known archeological resources located in the proposed exploration area but none are close to the proposed drill hole sites, seismic lines, or access routes.

3482.1(a)(3)(iv)(A) The general method to be followed during drill hole exploration, reclamation and abandonment is: 1) repair the Forest Development Roads where needed and prepare the drill site, 2) rotary drill, log and plug the exploration drill hole (hole 03-17-1 may be completed as a water monitor well), 3) reclaim the drill sites and access route. No blasting will be done for road building or repair. Repair of Forest Development Roads may include hauling gravel to fill rough areas on bedrock ledges and cover sandy areas on the road as well as grading rutted areas with a grader. Wheel track and drill site preparation and reclamation will be done with a D-8 Cat dozer and a road grader. Equipment operators will use pick-up trucks for transportation.

Rotary drilling will involve one truck-mounted 2000 ft. rated rotary drill, two 3000 gallon water trucks, one or two auxiliary air compressor(s), two to three supply trailers, four pick-up trucks, a geophysical logging truck and one covered trailer. The drilling procedure for the exploration holes will be to rotary drill to the core point using air, foam or mud, core the coal interval, ream the cored interval, and continue rotary drilling to TD. The auxiliary air compressor will provide extra air volume when hole depths increase. The supply trailers will carry drill steels, coring equipment, drilling additives, cutting and welding equipment, a dog house and other supplies. Four pick-up trucks will be used by drillers to carry personnel, fuel and supplies. The logging contractor will use a single axle 1 ton rated truck. A 10,000 gal. frac tank may be placed at each drillsite for water storage. Due to drought conditions over the past few years, previous drilling projects in the area have shown that it is necessary to haul water from the streams at night and during the morning hours. By afternoon, stream flows may be too low to allow pumping. For this reason, water storage is important to allow continued drilling during afternoon and evening hours.

Water for site 03-17-1 will be pumped from a 10,000 gal. storage tank at the north fork of Quitchumpah Creek to the drill site via a temporary 2 to 3 inch hdpe water line. Water would be pumped using a diesel-powered triplex pump. The pump station would be completely contained with pit liner or brattice to ensure no possibility of soil contamination. The water line would be pulled in place and later removed in sections by horseback. The pump station and water line location are shown on maps 2 and 3.

The drilling procedure for the piezometer in hole 03-17-1 will be to drill into the upper portion of the Star Point Sandstone beneath the Lower Hiawatha Seam and complete the hole as a piezometer as described in the reply to section 3482.1(a)(3)(iv)(C). Water will be hauled from the North Fork and/or South Forks of Quitchupah Creek to the drill sites or to a 10,000 gallon water (frac) storage tank (Map 2). The supply trailer will carry drill steels, coring equipment, drilling additives, cutting and welding equipment, a dog house and other supplies. Two pick-up trucks will be used by the drillers to carry personnel, fuel, and supplies and two pickup trucks will be used by the dirt contractor. The logging contractor will use a single axle 1 ton rated truck. The company representative and geological consultant will also use pick-up trucks for transportation.

3482.1(a)(3)(iv)(B) Earth excavation will mostly be done for the drill sites using a D-8 Cat and road grader. A track mounted backhoe and/or a rubber-tired backhoe may be used at times for construction of mud pits. Excavation will include grubbing, removal and separate storage of the soil A horizon and, if needed, removal and separate storage of material below the soil A horizon to make a level drill site. Two mud pits will be excavated in the material below the soil A horizon if there is sufficient soil depth. The only material disposed of at the drill sites will be cuttings and any drilling foam and/or mud which will be placed in the mud pits.

Grubbing may be necessary along the wheel track to 03-17-1. Small trees may need to be removed at several locations along Forest Development Roads.

3482.1(a)(3)(iv)(C) The exploration drill holes will be plugged with a cement or cement/bentonite slurry to their full depth. The completion method includes pulling surface casing when possible; but when not possible, cutting it flush with the ground, then pumping the cement/bentonite slurry through the drill pipe starting at the bottom of the hole. Plugging will then be done in stages by tripping-out of the hole 3-4 joints (60-80 ft) and pumping again. This process will be repeated to the surface. A brass identification tag will be placed in the concrete at the top of the drill hole stating the operator's name, drill hole number and legal description. The plugged hole will be flush with the ground surface.

Hole 03-17-1 may be completed as a water monitor well. The completion method includes cleaning the hole of drill cuttings by circulating with air or water, inserting a 1 to 2 inch diameter steel casing with a 30 ft section of 0.5 mm slot screen section with an end cap, filling the hole annulus in the screened section with washed sand or pea gravel, packing off the screened section or sealing it off with bentonite, then filling the remainder of the hole annulus to the surface with a cement or cement/bentonite slurry. A steel protective casing with locking cap will be placed 6 in. to 1 ft. above ground level. Figure 1 gives the design to be used in completing the piezometer.



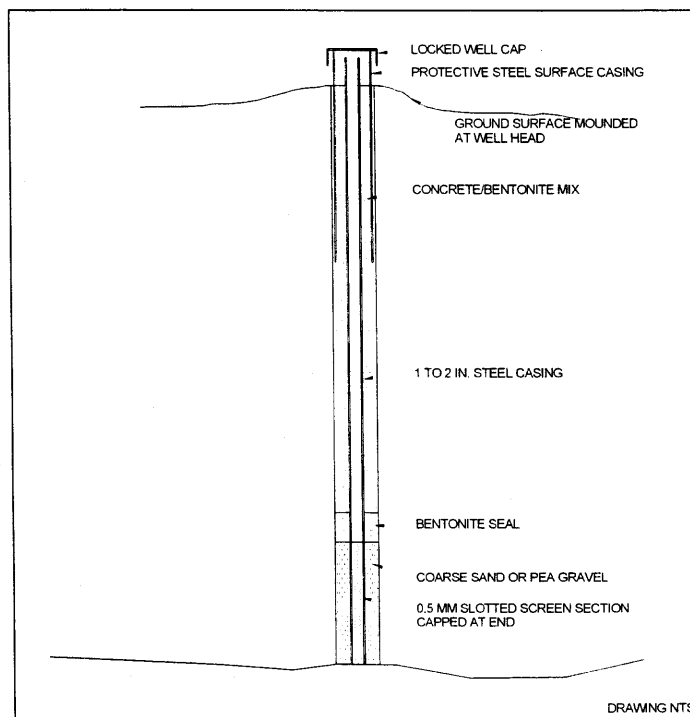


FIG. 1 PIEZOMETER DESIGN

3482.1(a)(3)(iv)(D) All the drill holes will be nominal 6 1/4 inches in diameter. The estimated depths of the proposed drill holes and other drill hole information is given in the following table. Drill site acreage is estimated for a 100 ft X 100 ft pad. Access routes are estimated to be 14 ft wide.

Drill Hole	Location	Total Depth (ft)	Disturbed Acreage		
			Drill Site	Access Route	Total
03-17-1	T21S, R5E, Sec.17, NE	1,800	0.23	2.47 (7,700 ft)	2.70
03-12-1	T21S, R5E, Sec.12, SW	1,000	0.23		0.23
03-12-2	T21S, R5E, Sec.12, NW	1,000	0.23		0.23
03-24-1	T21S, R5E, Sec.24, SW	1,000	0.23		0.23
	Total	4,800	0.92	2.47	3.39

3482.1(a)(3)(iv)(E) Borehole 03-17-1 may be completed as a piezometers (water monitoring) well. There are no plans to transfer control of the piezometer.

3482.1(a)(3)(v) A time table for all exploration related activities is given below. It is anticipated that exploration activities will start the second week of July 2003.

EVENT	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8
Prepare Forest Development Roads								
Prepare Drill Hole Access Routes and Sites								
Core Drilling and Piezometer Installation								
Reclaim Drill Hole Access Routes and Sites								

The only coal removed during exploration activities will be cores. Cores will be three inches in diameter. Assuming an average thickness of 12 ft for the Upper Hiawatha coal seam and 5 ft for the Lower Hiawatha coal seam, an estimated 284 pounds of coal will be removed.

3482.1(a)(3)(vii) The measures to be used during exploration activities to comply with the performance standards of 43 CFR 3484.1(a) are given in Appendix A, those of the surface management agency (USFS) are given in Appendix B and those of the approved state program (UDOGM) are given in Appendix C.

3482.1(a)(3)(viii) Three maps are included in this plan. The first (Map 1) is a general location map of the exploration area. The second map (Map 2) is at a scale of 1:60,000 and shows lands affected by the proposed exploration plan. This map shows existing roads, proposed access routes and drill hole locations, and federal coal lease boundaries. It also shows proposed locations for obtaining water. The third map (Map 3) is at a scale of 1:48,000 shows in more detail the portions of Leases U-63214 and U-76195 that will be affected including existing bodies of surface water and topographic and drainage features. There are no occupied dwellings or pipelines located in the exploration area. No trenches will be dug, no structures constructed, and no debris disposed of in the exploration area.

3482.1(a)(3)(ix) The owner of record of the surface land is the United States and is administered by the United States Forest Service, Manti-La Sal National Forest and Fishlake National Forest.

3482.1(a)(3)(x) At this time the authorized officer has not asked for additional data.

## APPENDIX A

### 43 CFR 3484

3484.1(a)(1) The standards of the rules of this part are given in the following sections of this Appendix A.

3484.1(a)(2) The lands on which exploration activities will occur are not valuable nor prospectively valuable for oil, gas, or geothermal resources. The drill holes proposed will not be drilled to depths or formations where oil, gas, or geothermal resources have been encountered in this area or could be encountered.

3484.1(a)(3) All drill holes will be plugged or completed as piezometers as previously described in the reply to section 3482.1(a)(3)(iv)(C). The BLM will be notified of when plugging or piezometer completion will start. The potential for water pollution will be minimized by keeping pollutants away from the drill hole and in their containers. Materials used during drilling operations will be selected to be as non-polluting as possible. All spills of polluting materials will be removed from the area and disposed of properly.

No mixing of surface and ground waters is possible because all drill sites will be above perennial and ephemeral stream drainages.

Mud pits, when used, will be constructed to hold all drilling mud and foam. The pits will be surrounded by a field fence/barbed wire fence until dry and reclaimed. When mud pits cannot be constructed, portable containers will be used or the drilling mud, foam, and/or cuttings will be hauled off U.S. Forest Service land and disposed of properly.

3484.1(a)(4) SUFCO will retain all drill and geophysical logs for at least one year and will make them available for inspection and analysis by the authorized officer. All drill cores will be retained for at least one year.

3484.1(a)(5) One drill hole, 03-17-1, may be completed as a water monitor well (piezometer).

## APPENDIX B

The surface management agency is the U. S. Forest Service, Manti-La Sal and Fishlake National Forests. This Appendix includes exploration requirements from the Forest Service as stipulations with Ark Land's response or action and other Forest Service requirements. The exploration stipulations come from the Manti-La Sal National Forest Land and Resource Management Plan (1986) and those applicable stipulations from the Special Coal Lease Stipulations attached to federal coal lease U-76195. Other Forest Service requirements are addressed at the end.

### Coal Drilling Permit Stipulations

1. Before undertaking activities that may disturb the surface of previously undisturbed leased lands, the Lessee may be required to conduct a cultural resource inventory and a paleontological appraisal of the areas to be disturbed. These studies shall be conducted by qualified professional cultural resource specialists or qualified paleontologists, as appropriate, and a report prepared itemizing the findings. A plan will then be submitted making recommendations for the protection of, or measures to be taken to mitigate impacts, for identified cultural or paleontological resources.

If cultural resources or paleontological remains (fossils) of significant scientific interest are discovered during operations under this lease, the Lessee, prior to disturbance shall immediately bring them to the attention of the appropriate authority. Paleontological remains of significant scientific interest do not include leaves, ferns, or dinosaur tracks commonly encountered during underground mining operations.

The cost of conducting the inventory, preparing reports, and carrying out mitigating measures shall be borne by the Lessor.

Response/Action - Ark Land will have a cultural resource inventory and paleontological appraisal done by a third party contractor in the Spring of 2003. The work will be done by a qualified contractor approved by the USFS. A plan will be submitted with recommendations for the protection of, or measures to be taken to mitigate impacts, should any cultural or paleontological resources be identified.

2. If there is reason to believe that Threatened or Endangered (T&E) species of plants or animals, or migratory bird species of high Federal interest occur in the area, the Lessee shall be required to conduct an intensive field inventory of the area to be disturbed and/or impacted. The inventory shall be conducted by a qualified specialist and a report of findings will be prepared. A plan will be prepared making recommendations for the protection of these species or action necessary to mitigate the disturbance.

Response/Action - Ark Land will have field inventories done of threatened or endangered fauna and flora by a third party contractor in the Spring of 2003. The work will be done by qualified contractors approved by the USFS. A plan will be submitted with recommendations for the protection of, or measures to be taken to mitigate impacts, should any threatened or endangered



fauna or flora be found.

3. The cost of conducting the inventory, preparing reports, and carrying out mitigating measures shall be borne by the Lessor.

Response/Action - Ark Land will bear the cost of conducting the inventories, preparing reports, and carrying out any mitigating measures.

4. If removal of timber is required for clearing of construction sites, etc., such timber shall be removed in accordance with the regulations of the surface management agency.

Response/Action - Ark Land does not plan to remove timber.

5. Existing Forest Service owned or permitted surface improvements will need to be protected, restored, or replaced to provide for the continuance of current land uses.

Response/Action - Ark Land will improve the surface of Forest Development Roads as needed following the recommendations of the USFS. A final grading of any ruts or other damage will be made after all activities are completed. Cattle guard by-passes will be used by equipment when available and where not, heavy planks will be laid on the cattle guard before crossing with equipment. Stock watering ponds will not be used and otherwise will not be affected by the exploration and reclamation activities.

6. In order to protect big-game wintering areas, elk calving and deer-fawning areas, sage grouse strutting areas, and other key wildlife habitat and/or activities, specific surface uses outside the mine development area may be curtailed during specified periods of the year.

Response/Action - Ark Land will not conduct exploration and reclamation activities during periods specified by the USFS to protect wildlife habitat and/or activities.

7. A pre-work meeting including the responsible company representative(s), contractors, and the Forest Service will be conducted at the project location prior to commencement of operations. Site-specific Forest Service requirements will be discussed at this time.

Response/Action - Ark Land will hold a pre-work meeting with the responsible company representative(s), contractors, and the Forest Service at the project location prior to commencement of operations. Site-specific Forest Service requirements will be discussed at this time.

8. A Road-Use Permit will be obtained from the Forest Service before equipment is transported onto National Forest System lands.

Response/Action - Ark Land will obtain a Road Use Permit from the Forest Service before equipment is transported onto National Forest System lands.

9. The Forest Service will specify times and locations, if any, that exploration activities may not

occur.

Response/Action - Ark Land will obey any times and locations specified by the Forest Service in which exploration activities may not occur.

10. All surface disturbing activities including reclamation will be supervised by a responsible representative of the permittee/licensee who is aware of the terms and conditions of the project permits and licenses. A copy of the appropriate permits and licenses must be available for review at the project site.

Response/Action - Ark Land will have an employee or representative who is aware of the terms and conditions of the project permits and licenses present during surface disturbing activities including reclamation.

11. The Forest Service must be notified 48 hours in advance that heavy equipment will be moved onto National Forest System lands and that surface disturbing activities will commence.

Response/Action - Ark Land will notify the Forest Service at least 48 hours in advance of the movement of heavy equipment onto National Forest System lands and of when surface disturbing activities will commence.

12. Establishment of campsites and staging areas on National Forest System lands in support of this project is subject to Forest Service approval.

Response/Action - Ark Land will request Forest service approval before establishing campsites or staging areas for this exploration project.

13. The Forest Service will be notified of any proposed alterations to the plan of operations. Any changes to the existing plan are subject to Forest Service review and concurrence.

Response/Action - Ark Land will notify the Forest Service of any proposed alterations to the plan of operations and will not make alterations to the plan until the Forest Service has reviewed and concurred with the change.

14. Fire suppression equipment will be available to all personnel working at the project site. Equipment will include at least one hand tool per crew member consisting of shovels and pulaskis and one properly rated fire extinguisher per vehicle and/or internal combustion engine.

Response/Action - Ark Land or its contractors will provide fire suppression to all personnel working at the project site, including at least one hand tool per crew member consisting of shovels and pulaskis and one properly rated fire extinguisher per vehicle and/or internal combustion engine.

15. All gasoline, diesel and steam-powered equipment will be equipped with effective spark

arresters and mufflers. Spark arresters will meet Forest Service specifications discussed in the USDA Forest Service Spark Arrester Guide, June, 1981. In addition, all electrical equipment will be properly insulated to prevent sparks.

Response/Action - Ark Land will ensure that all gasoline, diesel and steam-powered equipment is equipped with effective spark arresters and mufflers meeting USDA Forest Service Spark Arrester Guide, June, 1981. Also, all electrical equipment will be properly insulated to prevent sparks.

16. The permittee/licensee will be held responsible for damage and suppression costs for fires started as a result of operations. Fires will be reported to the Forest Service as soon as possible.

Response/Action - Ark Land understands that it will be held responsible for damage and suppression costs for fires started as a result of operations. Fires will be reported to the Forest Service as soon as possible.

17. The Forest Service reserves the right to suspend operations during periods of high fire potential.

Response/Action - Ark Land will, at Forest Service request, suspend operations during periods of high fire potential.

18. Water needed in support of operations will be properly and legally obtained according to State Water Laws. The locations of diversion, if on National Forest System lands, is subject to Forest Service review and approval.

Response/Action - Ark Land will properly and legally obtain the water needed in support of operations according to State Water Laws. Any diversions, if on National Forest System lands, will be reviewed and approved by the Forest Service. Water for exploration and reclamation activities will be taken from the North and/or South Forks of Quitichupah Creek where they flow under Forest Development Road FDR 007. It is estimated that 0.5 acre-feet will be used for drilling and dust suppression.

19. There will be no unauthorized off-road vehicular travel.

Response/Action - Ark Land will ensure that no unauthorized off-road vehicular travel occurs.

20. Section corners or other survey markers, including claim corners, in the project area will be located and flagged for preservation prior to commencement of surface disturbing activities. The removal, displacement, or disturbance of markers will be approved by the proper authority.

Response/Action - Ark Land will locate and flag any section corners, survey markers, and claim corners that are in areas of planned surface disturbance for preservation prior to commencement of surface disturbing activities. Any removal, displacement, or disturbance of markers will be

approved by the proper authority.

21. If cultural or paleontological resources are discovered during operations, all operations which may result in disturbance to the resource will cease and the Forest Service will be notified of the discovery.

Response/Action - Ark Land will cease all operations should cultural or paleontological resources be discovered and the Forest Service will be notified of the discovery.

#### Pre-Work Stipulations

1. Gates will be kept closed unless otherwise notified.

Response/Action - Ark Land will keep all gates closed unless otherwise notified.

2. The permittee will be responsible for all damages to fences, cattle guards, resource improvements, roads, and other structures on National Forest system lands which result from operations. The Forest Service will be notified of damages as soon as possible.

Response/Action - Ark Land acknowledges responsibility for all damages to fences, cattle guards, resource improvements, roads, and other structures on National Forest system lands which result from operations. The Forest Service will be notified of damages as soon as possible. P-shooter locations that coincide with culverts, cattle guards, or other improvements that may be damaged will be relocated to avoid damage.

3. All drilling fluids, muds, and cuttings will be contained on the project site in mud pits or portable containers. The pits will not be used for disposal of garbage, trash or other refuse.

Response/Action - Ark Land will contain all drilling fluids, muds, and cuttings in mud pits or portable containers. Where these are not practical, drilling fluids, muds, and cuttings will be hauled off U.S. Forest Service land and disposed of properly. An MSDS will be provided the Forest Service for all drilling fluids and muds used. The pits will not be used for disposal of garbage, trash or other refuse. Garbage, trash or other refuse will be properly disposed of off U.S. Forest Service land.

#### Other Requirements

1. All trees and brush will be grubbed (cleared) if needed as the first step for new access and drill site construction. Topsoil will be stripped and stockpiled at a location where loss and contamination will be minimized, preferably on the uphill side of the disturbed area. Subsoil, if excavated, will be removed separately from topsoil and stored separately. Mud pits will be excavated within the drill site area. Topsoil and subsoil piles will have properly constructed silt fences placed on their down-hill sides.
2. The disturbed areas will be reclaimed at the end of the field season. Disturbed areas include the drill site and the access routes to the drill sites. The drill sites will be reclaimed after the



mud pits have dried by replacing any removed subsoil first, followed by topsoil and restoring to approximate original contour and scarifying. Seeding will be done with the specified seed mix. Any grubbed material will be distributed over the area. After reclamation, the drill sites will be surrounded by a field fence/barbed wire fence to prevent cattle and wildlife from entering and promote successful reclamation. The estimated acreage disturbed by drilling is given in the reply to 43 CFR 3482.1(a)(3)(iv)(D).

3. Contaminated soil and gravel will be stripped and moved to an approved disposal site prior to reclamation.
4. Mud pits, if used, will be allowed to dry before they are back filled and reclaimed. Mud pits will be enclosed by a field fence/2 strand barbed wire fence while in use and while left to dry.
5. When dry, mud pits will be reclaimed by selectively back filling the excavated material, topsoil last, such that the disturbed area is replaced to approximate original contour. The disturbed area will be scarified and seeded with the specified seed mix after topsoil is replaced. No water diversion structures are anticipated.
6. Roads to be obliterated will be reclaimed by replacing any removed topsoil to approximate original contour, severe roughening, and seeding with the specified seed mix. Any grubbed material will be distributed over the area. No water diversion structures are anticipated. The permittee will place a fence with a sign at the beginning of reclaimed roads to discourage vehicular travel.
7. All disturbed drainages will be replaced to their approximate original configuration when the project area is reclaimed. At this time Ark Land does not plan to disturb any drainages.
8. All significant groundwater encountered during drilling will be reported to the Forest Service, including the depth and formation at which it was encountered, and an estimate of flow.
9. The permittee will clean-up all trash, garbage, and flagging and remove all drilling equipment and vehicles, and other such materials from National Forest System lands upon completion of exploration and reclamation operations.
10. All trash, garbage, and other refuse will be properly contained on the project site prior to disposal.
11. All drill holes to be plugged will be plugged in accordance with Federal and State regulations.
12. Exploration and reclamation operations will be coordinated with grazing permittees to prevent conflicts.
13. There will be no harassment of livestock and wildlife.

14. Drill pads will be constructed to prevent or diminish overland water flow from entering the site during precipitation events. Drill pads will be constructed to drain all spills and run-off into the mud pits. If necessary, pits will be pumped out to reduce their volume to ensure that overflow does not occur. The pumped fluid will be properly disposed of off Forest Service lands.
15. The permittee will notify the USFS District Ranger of any artesian groundwater flows encountered prior to plugging the drill hole to determine whether or not the Forest Service would elect to establish a permanent water development at the site.
16. The permittee will be responsible for control of noxious weed infestations found to be a result of this exploration. All equipment coming into the exploration area from outside Utah will be steam cleaned to remove foreign seeds.
17. No timber will be removed during exploration and reclamation. Small trees will be removed at several locations on Forest Development Roads to make equipment access better.

#### Road Use Stipulations

1. Roads will not be used when they are wet and susceptible to major damage.
2. The permittee will be responsible for repair of damages to roads caused by its operations.
3. When possible, equipment will be transported to the exploration area on low-boy flat beds to avoid damage to road surfaces, cattle guards and culverts. Planks will be laid on cattle guards to distribute the weight of heavy equipment.
4. All traffic related to exploration and reclamation operations will maintain speeds commensurate with existing conditions.
5. Roads will be watered if dust becomes a problem or if excessive loss of material occurs.
6. Heavy equipment will not be transported in the exploration area during holiday weekends and the opening weekend of the regular big game hunting season. The Forest Service will specify the dates.

#### Stipulation for Lands of the National Forest System Under Jurisdiction of the Department of Agriculture

1. The permittee will comply with all the rules and regulations of the Secretary of Agriculture set forth at Title 36, Chapter II, of the Code of Federal Regulations governing the use and management of the National Forest System (NFS) when not inconsistent with the rights granted by the Secretary of the Interior in the permit. The Secretary of

Agriculture's rules and regulations will be complied with for (1) all use and occupancy of the NFS prior to approval of a permit by the Secretary of the Interior, (2) uses of all existing improvements, such as Forest Service Development roads, within and outside the area permitted by the Secretary of the Interior, and (3) use and occupancy of the NFS not authorized by a permit approved by the Secretary of the Interior.

All matters related to this stipulation are to be addressed to:

Forest Supervisor

at: Manti-La Sal National Forest  
599 West Price River Drive  
Price, Utah 84501

telephone number: (801) 637-2817

who is the authorized representative of the Secretary of Agriculture.

## APPENDIX C

The proposed exploration plan qualifies as minor exploration as described in State of Utah Coal Mining Rules R645 section R645-200-122.

R645-201-221 to 225 Applicable parts of these stipulations were addressed in previous portions of this exploration plan.

R645-201-310 to 323.300 Requirements of these sections were addressed in previous portions of this exploration plan.

R645-201-323.400 The requirements of R645-202 will be met as follows -

R645-202-100 This was addressed in a previous portion of this exploration plan.

R645-202-231 This was addressed in a previous portion of this exploration plan.

R645-202-232 No roads or other transportation facilities will be constructed. The regulations cited in this section are not applicable to this exploration plan because 1) the access routes will be used only 5 - 7 days, 2) only minor work will be needed to make the access routes travelable, and 3) the access routes will be reclaimed as soon as drilling is complete. The work planned for the access routes (wheel tracks and new routes) will be smoothing of rough spots with a grader, leveling spots where the gradient is too high and grubbing some spots. Smoothing of rough spots and leveling spots will preferably be done with material in the access route but in some cases material will be hauled in. The total length of this work is 3 miles.

R645-202-233 This was addressed in a previous portion of this exploration plan. In addition, topsoil and subsoil piles will have properly constructed silt fences placed around them to minimize loss of material. During reclamation, grubbed material will be distributed over the areas from which it was removed to enhance germination.

R645-202-234 There will be no diversion of overland flows.

R645-202-235 The drill holes will either be plugged or completed as piezometers which, in both cases aquifers will be sealed to preclude cross-connection. Impoundments will not be constructed.

R645-202-236 It is not anticipated that acid- or toxic-forming materials will be encountered during exploration because none have been encountered previously. If adequate core recovery occurs, samples of drill core will be obtained from within 10 ft. of both roof and floor strata for each minable coal seam and analyzed for acid-toxic materials.

R645-202-241 This was addressed in a previous portion of this exploration plan.



R645-202-242 The method of revegetation described in a previous portion of this exploration plan is intended to encourage prompt revegetation and recovery of a diverse, effective, and permanent vegetative cover. The seed mix to be used is as follows -

Seed Mix		<u>Pounds PLS/acre</u>
Western Wheatgrass	Elymus smithii	2
Basin Wild Rye	Elymus cinereus	1
Intermediate Wheatgrass	Elymus hispidus	2
"Paiute" Orchardgrass	Dactylis glomeratus	2
Yellow Sweet Clover	Melilotus officinalis	1
"Rambler" Alfalfa	Medicago sativa	1
Blueleaf Aster	Aster glaucodes	0.25
Lewis Flax	Linum lewisii	0.50
Small Burnet	Sanguisorbia minor	1
Mountain Big Sage	Artemisia tridentata vaseyana	0.25
Bitterbrush	Purshia tridentata	1

Certification tags will be retained by the permittee.

The vegetative cover resulting from this seed mix is considered capable of stabilizing the soil surface from erosion.

R645-202-243 This is addressed in a previous portion of this exploration plan.

R645-202-244 This is addressed in a previous portion of this exploration plan.

R645-201-323.500 This was addressed in a previous portion of this exploration plan.